**Introduction**

Welcome to another issue of Building Bridges. We hope you will be pleased with the wide range of features. These include articles on Operation Baby Buckle, an inspirational private sector effort that provides free child safety seats to thousands of families; the National Transportation Safety Board (NTSB), a federal agency whose role in traffic safety is often overlooked; and E codes, an important source of data for traffic safety and injury prevention professionals. We have also devoted a fair amount of space to describing resources of interest to anyone working on the prevention of motor vehicle, pedestrian, and bicycle injuries.

**Operation Baby Buckle**

The next few years will almost certainly see a transformation in the roles that government agencies play in traffic safety and injury prevention. Public health and traffic safety agencies will be redefining their roles as the nation’s health care system changes with the growth of managed care. Both types of agencies will have to cope with smaller budgets and fewer resources as government downsizes and responds to the public’s priority of reducing the federal deficit. Increased collaboration with the private sector is one way that traffic safety and public health professionals can respond to these changes and generate new resources.

Fortunately, certain companies are proving themselves not just as willing partners but as leaders taking the initiative in traffic safety activities. One of these leaders is Primerica Financial Services (PFS), a subsidiary of Travelers, Inc. PFS is one of the largest direct marketing companies in the country with more than 100,000 licensed representatives. PFS is the national sponsor of Operation Baby Buckle, a Safe America Foundation Project. Operation Baby Buckle uses the volunteer services of PFS agents in over 35 states to raise money for child safety seats. Fundraisers range from public events at malls to black-tie dinners, 10-kilometer road races, golf tournaments, and dinner cruises. In 1994, local Operation Baby Buckle programs raised over $600,000, which Project Director Len Pagano hopes to increase to over $750,000 in 1995.

(continued on page 2)
Other corporations are involved with the campaign. Hanna Barbera has authorized Operation Baby Buckle to use its Flintstones cartoon characters. Operation Baby Buckle's logo shows Pebbles, the youngest member of the Flintstone family, in a child safety seat. And at some fundraisers, a child can have his or her picture taken with a Flintstones character for a small donation.

General Motors has made a number of large donations for child safety seats and Century Products provides seats to the program at a discount. Several National Highway Traffic Safety Administration (NHTSA) regional offices and a number of governor's highway safety offices and state health departments are involved with Operation Baby Buckle, as is the Southeastern Regional Injury Control Network (featured in the very first issue of Building Bridges).

Pagano says, “We try to have as many corporate names involved as possible because we think that safety is everybody's business. The number of people that are needlessly hurt or killed each year impacts everybody. There are so many costs to a community.”

For more information or to locate the Operation Baby Buckle affiliate nearest you, contact Len Pagano, Operation Baby Buckle, P.O. Box 965308, Marietta, GA 30066. Phone (404) 497-6153.
National Board

The National Transportation Safety Board (NTSB) is often associated with the investigation of major crashes involving airplanes or trains. However, the NTSB also plays an important role in traffic safety and is an excellent resource for state and local traffic safety and injury prevention professionals. NTSB staff investigate traffic incidents or problems that it believes have national implications; issue reports and recommendations based on these investigations; and work with states, community groups, and others to promote passage of safety legislation consistent with their recommendations.

Some NTSB investigations are of a single critical incident (such as the investigations of a collision involving a charter bus in New Jersey, a train that hit a gasoline truck in Florida, and the collapse of a bridge in Alabama after one of its supports had been hit by a tractor-trailer truck). Others are broader. A 1985 NTSB study of child safety seats and the subsequent recommendations have contributed to the progress made in child safety seat legislation over the past 10 years. NTSB has conducted similar epidemiological studies (and issued recommendations) in other areas, including truck collisions, school bus safety, safety restraints, roadway work zones, repeat DUI offenders, and, most recently, young drivers. NTSB’s current list of Most Wanted Transportation Safety Improvements includes recommendations for the immediate suspension of the driver’s license of anyone failing or refusing a chemical test for alcohol; strengthening laws concerning the sale of alcohol to those under age 21, zero blood-alcohol content, and licensing; as well as improving enforcement, licensing, and education programs for those under age 21, and heavy commercial truck and school bus safety.

The NTSB maintains a database of its reports and recommendations and provides these materials to agencies and other groups who advocate for traffic safety legislation. NTSB experts also testify before state and federal legislative hearings, inform governors of the policy implications of their research, and work with state and federal agencies and private organizations to promote the passage of traffic safety legislation.

E Codes

One of the keys to an effective traffic safety or injury prevention program is a clear understanding of the injury problem. Important elements of this understanding concern the number of injuries that occur, their nature and severity (e.g., whether the injuries are scrapes and minor lacerations, fractures and concussions, or head and spinal cord injuries), who is being injured, how these injuries occur, and where they occur. Traffic safety and injury prevention professionals can use this information to identify and prioritize injury problems, and target prevention programs. Program managers can decide, for example, whether they should focus their limited resources on a campaign to reduce pedestrian injuries among the elderly or bicycle injuries to children. More detailed information on precisely how bicycle injuries are occurring in a community can play a large role in deciding whether efforts should be made to increase bicycle helmet use among children or if it is more important to create bicycle paths that separate bicycles from motor vehicles.

Police reports— an important source of information about the circumstances surrounding traffic injuries— often lack detailed information about the injuries themselves. The information on injuries that is contained in these reports is often lost when the records are abstracted for computerization. Some traffic-related injuries, especially those that occur to bicyclists, are never reported to police.

Medical and emergency medical services data can provide more information about the injuries themselves. What is often missing from these sources is information about the causes and circumstances of injuries: the “how.” It is difficult to design programs that will effectively prevent injuries if the causes of these injuries are unknown. Fortunately, there is a relatively inexpensive method of quickly and efficiently recording information on the causes of injury in existing data sets (such as ambulance run sheets or hospital discharge data). These External Cause of Injury codes (commonly called E codes) were developed by the World Health Organization through a process of international cooperation, consultation, and exchange of information. The codes are designed to provide a uniform system for describing the circumstances and causes of injury that is not dependent on any particular national or regional system for recording or classifying data.

These codes are currently being used in many countries to supplement existing data collections and to provide a more complete record of injuries.

Office of Safety Recommendations (202) 382-8006.

(continued on page 4)
E Codes (continued from page 3)

Health Organization (WHO) as a supplemental code for use with the International Classification of Diseases (ICD). These four-digit E codes provide a systematic way to classify diagnostic information that doctors, nurses, and other health care providers have entered into the medical record. They are standardized internationally; allow consistent comparisons of data among communities, states, and countries (or across time for purposes of evaluation studies); and are easily used in computerized data systems. If E codes are included in hospital records, the medical and financial consequences of particular types of motor vehicle injuries can be examined.

E codes provide information about both the event during which the injury took place and the individuals who were injured. For example, E codes can record whether the individual injured was a passenger in a motor vehicle that collided with another motor vehicle (E813.1) or the driver of a motor vehicle that collided with a train (E810.0). When combined with other information in the medical record (especially N codes, which define the medical nature of an injury), E codes can tell us a great deal about the types of events that produce injuries and the types of injuries they produce.

E codes are mandatory on death records for all persons whose deaths are injury related.

They are less frequently included in other important injury data sources, such as hospital discharge data, emergency room records, and ambulance run reports. E codes are not used for reimbursement, so they are frequently dropped in abstracting records for computer entry. But E codes are not research trivia. They can create a picture of the specific circumstances of an injury which, in conjunction with other data, become the foundation for many injury prevention activities to make communities safe. As managed care and capitation grow, injury prevention will take on a new importance for hospitals as they realize the cost-effectiveness of prevention programs. Traffic safety and emergency medical service professionals are also finding E codes to be a valuable resource for targeting and evaluating programs. The sidebar on E codes in Arizona demonstrates how E codes were used in one state to better understand the head and spinal cord injury problem and implement measures to reduce these injuries.

Consistent use of E codes in hospital discharge data, emergency department records, and ambulance run sheets would provide an extremely valuable resource for the study of and prevention of injuries. Traffic safety and public health professionals can advocate for E codes by showing administrators and medical personnel that E codes can lead to more effective injury prevention efforts. They can also work toward state regulations requiring the inclusion of E codes in data sets. Fifteen states require that E codes be included in discharge or billing data.

An important resource for such efforts is E Codes: The Missing Link in Injury Prevention, a brochure explaining and promoting the use of E codes, available from the Children’s Safety Network, National Injury and Violence Prevention Resource Center, Education Development Center, Inc., 55 Chapel Street, Newton, MA 02158-1060. Phone (617) 969-7100, extension 2230. E-mail <csn@edc.org>. Up to 10 copies per request are available at no charge.

A complete list of E codes is included in The International Classification of Diseases, Ninth Revision, Clinical Modification, Fourth Edition, DHHS (publication number 91-1260). It is also available on CD-ROM (stock number 017-022-01268-5) for $18. Both the printed copy and the CD-ROM are available from the United States Government Printing Office at (202) 512-1800. Another useful resource is the ICD-9CM Easy Coder by Paul Tanaka, which is published by Unicor Medical, Inc., 4160 Carmichael Road, Montgomery, AL 36106. Phone (205) 260-8150.

Resource

Putting It Together: A Model for Integrating Injury Control System Elements is a statement on the value of collaboration in traffic safety developed by NHTSA Administrator Dr. Ricardo Martinez and his staff. Putting It Together presents a vision of “an integrated system, where linkages and partnerships exist among the system components, as well as with business, government, health care, and community groups working together to reduce the toll of injuries.” An executive summary of Putting It Together is available from the Health Care Resource Spotlight

Task Force (NOA-01), National Highway Traffic Safety Administration, 400 Seventh Street, S.W., Washington, DC 20590. Phone (202) 366-2105, fax (202)366-2106. An implementation plan will be available at a future time. Putting It Together advances the cause of goal one of People Saving People On the Road to a Healthier Future. NHTSA’s strategic plan, which is available from NHTSA, Office of Planning and Policy, 400 Seventh Street, S.W., NTS 10, Washington, D.C. 20590. Phone (202) 366-1574.

The Injury Control Resource Information Network (ICRIN) is an invaluable resource available over the Internet World Wide Web. Developed by Hank Weiss of the University of Pittsburgh Center for Injury Research and Control, ICRIN provides a number of valuable resources including links to virtually every Internet site of interest to traffic safety and injury prevention professionals. Some of the resources found at ICRIN include information on conferences and meet-
E Codes in Arizona

E codes have proved an invaluable resource for assessing motor vehicle-related injury problems as well as designing programs to reduce these injuries.

Injury Epidemiologist Pamela Goslar of the Arizona Department of Health Services gives her account of a project in which public health and emergency medical service agencies used E codes to identify and address an important injury problem.

The Arizona Governor’s Spinal and Head Injury Trust Fund receives a portion of our state’s speeding ticket fines for use in head and spinal cord injury primary prevention programs. We collaborated with the trust fund to help develop a primary prevention program. We wanted to target an intervention where it would be the most effective and efficient—where it would get the most bang for the bucks. We wanted to know in which geographic area and on what age group we should concentrate.

Using N (Nature of Injury) codes, we pulled all of the injuries from the health services department hospital discharge database from 1988 through 1991. Then we used E (External Cause of Injury) codes to look at the four most frequent causes of injury (among the spinal and head injuries identified by the N codes).

We have seven level-one trauma centers in our state. We also have a very good trauma society. Our medical records technicians do a great job of recording E codes. And our hospitals do a very good job of including E codes in the hospital discharge data.

The causes were what you would expect: motor vehicle crashes, falls, interpersonal violence, and other (unspecified injuries). We were especially interested in head injuries. So we analyzed the data by county and age group. We compared each county age group rate with the state to see which counties showed significantly higher rates among particular age groups for particular types of injuries. The result: motor vehicle crashes were the top cause of hospitalization from head injuries. And Pima County had higher rates than the rest of the state for age groups 10–24, 30–34, and above 55.

The next step was to refine our analysis of what was happening in Pima County. These were pretty broad categories. We wanted to be much more specific. We contracted with the Arizona Emergency Medical Research Center to evaluate local data sources that would give us more specific information. Dr. Terry Valenzuela is the medical director of the Tucson Fire Department. Several years ago he instituted the practice of recording E codes in the ambulance run data. So we could go into the Tucson Fire Department EMS data and pull all motor vehicle-related injuries. Because they also used N codes, we could then pull all of the records of head injuries resulting from motor vehicle crashes. We could look at the fire department’s data on these incidents for more specific information, like where the crash took place.

We looked at the Tucson data and were able to pinpoint the 10–19 year olds as our highest risk population. The Tucson Fire Department offered to do a seat belt intervention for that age group. We couldn’t do every school in the city. In order to target schools, we decided to use the assumption that motor vehicle crashes happen within 10 miles of home. We thought if we could geographically pinpoint crashes, it would tell us where there’s a cluster, and we could target that high school. So we took a map and, using the records we had pulled by E code and N code, we looked at the Tucson Fire Department database to see if we could identify what leads to crashes in this cruising area.

At the end of the day, they have an assembly about automobile safety. The kids are going to help choose the interventions.

We are also going back to the original run sheets and pulling the police department accident reports to see if we can identify what leads to crashes in this cruising area. We may work with the Tucson Police Department and request additional enforcement during certain hours.

It’s a really interesting project. It’s really exciting to see it unfold. But without E codes, we could not have identified the problem. And without E codes, we would have no idea if we make a difference. Have we reduced the number of motor vehicle crash injuries? Who knows if you don’t have E codes.

Now that we’ve shown that the Tucson Fire Department database can be used in this way, the University of Arizona Medical Center and the Tucson Medical Center are going to be evaluating Tucson’s bicycle helmet ordinance using the Tucson Fire Department database and their own hospital discharge data.

I wish people really understood how important E codes are and how much information they can give you.
Resource Spotlight
continued from page 5
ings and a list of E codes (see article, this issue). Internet sites linked to ICRIN include those operated by a number of federal agencies (including the U.S. Department of Transportation), the Bicycle Helmet Safety Institute, the American Public Health Association Injury Control and Emergency Health Services Section, and several injury prevention and control research centers. Readers with access to the World Wide Web can find ICRIN at <http://www.pitt.edu/~hweiss/injury.htm>. For further information, contact Hank Weiss, Center for Injury Research and Control, MUH/NE 560, 200 Lothrop Street, Pittsburgh, PA 15213-2582. Phone (412) 692-2800, fax (412) 692-2815, or e-mail <hweiss@pitt.edu>. Please contact Mr. Weiss only for questions on ICRIN and not with general questions on Internet access.

NHTSA Online is now available through FedWorld, the online source for government information operated by the National Technical Information Service. NHTSA’s system currently contains over 230 downloadable files including information about NHTSA itself, news bulletins about traffic safety, information for consumers, and information on NHTSA safety campaigns, emergency medical services, and automobile recalls. Also available are ways to electronically submit questions or comments to NHTSA as well as forums for the public discussion of traffic safety issues.

FedWorld can be reached with a personal computer and a modem by dialing (703) 321-8020. For those with Internet access, FedWorld can also be reached by telnet at <fedworld.gov> or <192.239.92.201>, by FTP at <ftp.fedworld.gov> or <192.239.92.205>, and on the World Wide Web at <http://www.fedworld.gov>. For more information about FedWorld, call the FedWorld Help Desk at (703) 487-4608.

The United States Department of Transportation also has a World WideWeb site at <http://www.dot.gov>. The National Electronic Injury Seminar is a series of quarterly telephone conference calls designed to inform injury prevention and traffic safety professionals about new developments and approaches. Each seminar is held using the California Department of Health Services’ electronic telephone bridge which allows a large number of individuals from across the country to call in and participate. Each session includes a presentation by a guest speaker and an opportunity for participants to ask questions or contribute to the discussion. Many of the seminar topics would interest those in traffic safety. For example, in January 1995, Captain Steve Ellis of the California Highway Patrol presented on “Passing Primary Seatbelt Legislation.” In April, James Mosher of the Marin Institute for the Prevention of Alcohol and Other Drug Problems spoke on “Alcohol Prevention: Role of State Agencies in Promoting Policy Change.” For more information, contact Barb Alberson, California Department of Health Services, (916) 323-3486.

The National Traffic Law Center (NTLC) was created by the American Prosecutors Research Institute (APRI), in conjunction with NHTSA. NTLC seeks to improve the quality of justice in traffic safety adjudication. The center provides a broad range of services to prosecutors’ offices and others including training, research, and assistance with evidentiary and technical issues. The NTLC’s clearinghouse includes case law, model legislation, research reports, state statutes, trial documents, and training materials. NTLC maintains a list of experts and publishes Between the Lines, a quarterly newsletter on highway safety laws and law enforcement. For more information, contact the National Traffic Law Center, 99 Canal Center Plaza, Suite 510, Alexandria, VA 22314. Phone (703) 549-4253.

CrashCost is an easy-to-use software program, developed by NHTSA, which allows users to calculate estimates for the economic costs of motor vehicle crashes for each state, including costs of alcohol-related crashes. The program can estimate individual categories of costs including medical costs, insurance costs, property damage, and lost productivity. The program can also calculate costs saved if states meet seat belt use or motorcycle helmet use goals. Data for 1992 for all states is included, although users can input more recent data or community-level data if they wish to do estimates on a smaller scale. CrashCost is a DOS program and cannot be used on computers running Windows. Copies of CrashCost are available free of charge from NHTSA, National Organizations Division, 400 Seventh Street, S.W., #5118, NTS-11, Washington, DC 20590. Phone (202) 366-2683.

Managed Care: Impact on Injury Control is the focus of a September 14–16 conference in Charleston, WV. The conference will explore how managed care will impact injury prevention, emergency services, and the collection and analysis of injury data. For more information, contact the Center for Rural Emergency Medicine, P.O. Box 9151, Robert C. Byrd Health Science Center, West Virginia University, Morgantown, WV 26506. Phone (304) 293-6682.

Injury Control in a Managed Care Environment is the title of a session at this year’s annual meeting of the American Public Health Association in San Diego. The session will be held at 7 P.M. on October 31 and feature, among others, Dr. Ricardo Martinez, NHTSA administrator; Dr. Mark Rosenberg, director of CDC’s National Center for Injury Control and Prevention; and Dr. Robert Thompson from Group Health of Puget Sound. Contact information for the annual meeting can be found in “Resources.”
Resource 

Bicycle and Pedestrian Resources

Three of the resources previewed in the fall 1994 issue of Building Bridges are now available. The National Bicycle and Pedestrian Clearinghouse (NBPC) is now responding to requests for information on bicycle and pedestrian programs and issues. It distributes bicycle- and pedestrian-related documents issued by the United States Department of Transportation, provides technical support on bicycle and pedestrian issues, and can provide referrals to other organizations when appropriate. NBPC is a partnership of the Bicycle Federation of America, the Rails-to-Trails Conservancy, and the Federal Highway Administration. For further information, contact the National Bicycle and Pedestrian Clearinghouse, 1506 21st Street, N.W., Suite 210, Washington, DC 20036. Phone (800) 760-NBPC or (202) 463-8405, fax (202) 463-6625.


Puttin g Partnerships into Practice: Six Months Later

The winter 1995 issue of Building Bridges reported on the Putting Partnerships into Practice conference at which members of the National Association of Governors’ Highway Safety Representatives and the State and Territorial Injury Prevention Directors Association came together to discuss and plan collaborative activities that address motor vehicle-related injuries. During conference workshops, 33 state teams developed collaborative goals. Education Development Center, Inc. (EDC), under a grant from NHTSA, has completed an assessment of the progress made on these goals during the six months following the conference. In addition to refining their goals and objectives, many of the state teams have undertaken collaborative activities including improving data collection and analysis efforts by encouraging emergency departments to submit consistent injury data to the state health department; developing joint legislative agendas on issues including impaired driving laws, bicycle helmets, and occupant protection laws; and holding conferences to improve the collaboration between traffic safety and public health agencies.

Meetings


January 23–25, 1996, Atlanta, Ga.: National Workshop on Emergency Department Data. This conference is part of an ongoing effort to implement a uniform emergency department data set and improve the quality of emergency department data. Planning for this conference is being coordinated by CDC, with participation by the American College of Emergency Physicians, American Health Information Management Association, Emergency Nurses Association, National Association of EMS Physicians, Society for Academic Emergency Medicine, Health Resources Development Center, Inc., under a grant from NHTSA. For more information, contact Daniel Pollack, National Center for Injury Prevention and Control, CDC (F41), Atlanta, GA 30343. Phone (404) 488-4324, fax (404) 488-4338, or e-mail <daniel.pollack@cdc.gov>.
Resources

Applying an Injury Control Model to the Treatment of Motor Vehicle-Related Injuries: Although primarily focused on acute care treatment, this publication, edited by NHTSA Administrator Dr. Ricardo Martinez, also introduces emergency physicians to the concept of injury prevention and control. This volume is available alone ($41 nonmembers; $34 ACEP members) or as part of a package including an instructor's manual, slides, and everything else necessary to give a course on this topic ($300 nonmembers; $250 members). For more information, contact the American College of Emergency Physicians (ACEP) at (800) 798-1822 or (214) 550-0911.

NAGSHR Resolutions, 1974-1994: A topically organized collection of all policies adopted by the National Association of Governors' Highway Safety Representatives over the past 20 years. This publication is available at no cost from NAGSHR, 750 First Street, N.E., Suite 720, Washington, DC 20002-4241. Phone (202) 789-0942, fax (202) 789-0946.

News, Articles, Photos (NAP): A monthly compilation of newspaper clippings and photographs relevant to railroad crossing safety and car-train collisions. $48/year. For more information contact Ernie Oliphant, Highway and Rail Consulting Service, 3008 North 16th Drive, Phoenix, AZ 85015-6147. Phone (602) 263-0154, fax (602) 263-0155.

Transporting Students with Disabilities ($137/year) and School Transportation Director ($107/year), two newsletters of special interest to those involved in transporting students, are both available from Federal News Services, Inc., P.O. Box 13460, Silver Springs, MD 20911-0460. Fax (301) 608-9057.

Errata

The Children's Safety Network address list that appeared in the winter 1995 issue of Building Bridges contained several inaccuracies. James Seidel and Deborah Henderson are the co-directors of the National EMSR Resource Alliance. Darlene Peckham is the Information Specialist. The correct telephone number for the CSN Economics and Insurance Resource Center is (301) 731-9891. We apologize for any inconvenience this misinformation may have caused.